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AUTHOR Holtz, Gregory M.
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ABSTRACT

A bilingual program funded under Title VII and carried out in four Bronx, New York, elementary schools is the subject of this evaluation report. Staffing patterns, inservice training, and English as a Second Language classes for Spanish and Italian speaking parents are briefly described. Evaluative data tables are presented for student performance in each of four program areas: native language maintenance, English language development, cultural awareness, and mathematics and reading outcomes. Based on the data, it is concluded that (1) the native language maintenance component was the weakest program segment in terms of measurable outcome: (2) the English language development component was moderately successful: and (3) the academic outcomes produced by the math and reading component of the program were excellent. (GC)

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NICHOLAS CICCHETTI
DISTRICT SUPERINTENDENT

IRWIN ALTMAN
DEPUTY SUPERINTENDENT

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BILINGUAL PROGRAM
EVALUATION REPORT

Project No. 403AH50065

Grant No. G007503633

C.S.D. District 11
Bronx, New York

Prepared by:
Gregory M. Holtz, Ph.D.
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ESEA Title VII Bilingual Program

Bilingualism Increases Excellence Now

Introduction

This report is divided into three parts. Part I is a project description, with information concerning the number of target children at each school involved and a review of program components. Part II of this report contains evaluative data on each program component mentioned in the objectives:

a) Native Language Maintenance
b) English Language Development
c) Cultural Awareness
d) Mathematics and Reading Outcomes

This part of the report houses the several tables used to report the quantifiable aspects of the program.

Part III of the report is a summary review of the 1978-79 program outcomes.

PART I: Program Description

The project operated at four elementary schools:

P.S. 83, where it serviced 165 students, grades 1,2,3,4,5 and 6
P.S. 103, where it serviced 152 students, grades 1,2,3,4,5 and 6
P.S. 105, where it serviced 150 students, grades 1,2,3,4,5 and 6
P.S. 111, where it serviced 164 students, grades 1,2,3,4,5 and 6

The project is staffed as follows:

a) Full time staff supported by the grant:
1 Teacher - Project Director (trilingual)
2 Teachers Resource Specialists (bilingual)
8 Educational Assistants (bilingual)
1 Clerk (trilingual)

b) Part-time staff supported by the grant:
1 Teacher - Parent Trainer (30%)

c) Hourly staff supported by the grant:
2 Teachers of E.S.L. to parents
2 Teacher Trainers - Second Language Methods
1 Teacher Trainer - Educational Assistant Trainer

d) Full time staff supported by other sources:
1 Teacher Resource Specialist
20 Teachers - Classroom Teachers

In conjunction with Iona College, three, three-credit graduate level courses were offered, on a tuition reinbursable basis, to teachers participating in the project and to those teachers preparing to participate in the conduct of the program.

Finally, the English as a Second Language classes provided for limited English speaking parents. These classes serviced Spanish and Italian parents in 1978-79.

PART II: Component Evaluation

a) Native Language Maintenance

Table 1

Pre and Post Distribution by Percentile for Grades 2,3,4, 5 and 6 on Spanish Language Assessment Battery (L.A.B.)

Pre-Test* (N=130)	Percentile	Post-Test (N=117)
56	1 - 10	51
24	11 - 20	18
17	21 - 30	16
18	31 - 40	18
12	41 - 50	10
2	51 - 60	0
1	61 - 70	4
0	71 - 80	0
0	81 - 90	0
0	91 - 99	0

(*) Spanish Dominant students only.

The data in Table 1 indicate that the program has limited effects in terms of native language development, but does "maintain" the population of native Spanish dominant students at approximately the same level as measured by the Spanish L.A.B.

b) English Language Development

In order to assess achievement of the first year objectives, all limited English speaking students completed the Language Concept

Series (L.C.S.) placement inventory in September, 1978. As a result of this placement inventory two groups were formed: Level 1 group contained 130 students who were non-English speakers; Level II group contained 141 students who were severely handicapped in their ability to speak and understand English; a third group of monolingual English students were also identified. The balance of the Bilingual students (317) were screened out (using L.C.S. placement) of the individual English language instruction and into group settings for their instruction.

Non-English speaking students

These students were offered English language instruction using the L.C.S. units with 10 item mastery tests upon completion of each unit. If a student scored 8 out of 10 on the mastery test, he/she moved on to the next unit.

Number of Students	Units Completed
1	1-2
12	3-4
28	5-6
30	7-8
20	9-10
32	11-12
123	

Limited English speaking students

These were 141 students who were initially assessed as Level II limited English speaking. These students also received L.C.S. instruction in much the same format as did the Level I students. The single major difference was that all Level II students had completed the first 10 units of the L.C.S. series successfully as part of their being screened into the Level II group.

Number of Students	Units Completed
3	1-2
21	3-4
26	5-6
61	7-8
30	9-10
141	

Monolingual English Students

The Stanford Early School Achievement was administered on a pre and post-test basis to the 53 monolingual students. On the post-test, 46% of these students scored in the 76-99 percentile range in math. Another 35% were in the 51 to 75 percentile range. Nineteen percent fell on or below the 50th percentile in math. In the verbal section of the Stanford Early Achievement test the scores were higher; 81 of the monolingual students fell between the 76th and 99th percentile. Only 7% of the students fell at or below the 50th percentile.

c) Cultural Awareness

Cultural activities, i.e., games, songs, stories and dances were infused into the daily activities of the children. According to observations of the project teachers, the program

"produced a greater awareness among the children of their parents' culture"

"developed an understanding of the roots of all children in the class"

"the children were eager to use their native language in the play"

The Project Director has observed a great change in parental attitude regarding attendance at assembly programs. Before this project, the celebration of Puerto Rico Discovery Day was a class celebration, very private and quiet. Due to the greater appreciation of Puerto Rican culture brought about by this project, over 240 parents of participating students attended the assembly programs for Puerto Rico Discovery Day this year.

The greatest observable impact seems to be the fact that the children are not reticent to use their own language, that they seem to have an awareness of what their culture means and "estan orgullosos de ser borinquenos".

School supervisors have indicated a greater degree of participation in both cultural events, i.e., celebration of Puerto Rico Discovery Day and in P.T.A. meetings.

The limited English-speaking parents seem to feel more "at home" in school, especially when they serve as volunteers in project classrooms.

d) Mathematics and Reading Outcomes

Method. In order to determine if the target population of Title VII children benefited from the math component of the program the following procedure was followed.

Step 1. In October 1978, the appropriate level of Form 7 of the Iowa Test of Basic Skills (Math) was given to each program participant.

Step 2. The individuals actual pre-test raw score was used to determine a percentile rank.

Step 3. The pre-test percentile rank was carried forward to the post-test norms for the same percentile rank.

Step 4. The corresponding raw score for that "projected" percentile rank is used as an "anticipated" post-test.

Step 5. A post-test was given in May, 1979 using the Form 7 of the Iowa Test of Basic Skills.

Step 6. The data are grouped and the actual post-test raw scores are compared to the anticipated post-test scores using a correlated t-test.

Table 2

2nd Grade Math Results. Title VII 1978-79

N.	Pre-test Mean (G.E.)	Anticipated** Post-test	Actual Post-test	t-ratio	P
102	10.1* (1.9)	13.5	16.7	2.71	.05

* Raw Scores
** Results that could be expected without Title VII program intervention.

Table 3

3rd Grade Math Results. Title VII 1978-79

N.	Pre-test Mean (G.E.)	Anticipated** Post-test	Actual Post-test	t-ratio	P
116	8.5* (2.4)	13.0	17.6	2.95	.02

Table 4

4th Grade Math Results. Title VII 1978-79

N.	Pre-test Mean (G.E.)	Anticipated** Post-test	Actual Post-test	t-ratio	P
126	11.5* (3.3)	18.0	21.3	1.96	.05

Table 5

5th Grade Math Results. Title VII 1978-79

N.	Pre-test Mean (G.E.)	Anticipated** Post-test	Actual Post-test	t-ratio	P
120	16.1* (4.5)	21.1	24.6	2.01	.05

* Raw scores.
** Results that could be expected without Title VII program intervention.

Table 6

6th Grade Math Results. Title VII 1978-79

N.	Pre-test Mean (G.E.)	Anticipated** Post-test	Actual Post-test	t-ratio	P
112	18.2* (5.6)	23.5	24.3	.34	N.S.

In order to determine if the target population benefited from the Reading component of the Title VII program, the same procedure outlined for the preceeding Tables 2 through 5 was used.

Table 7

2nd Grade Reading Results. Title VII 1978-79

N.	Pre-test Mean (G.E.)	Anticipated** Post-test	Actual Post-test	t-ratio	P
114	9.2* (1.7)	11.5	14.6	3.53	.01

Table 8

3rd Grade Reading Results. Title VII 1978-79

N.	Pre-test Mean (G.E.)	Anticipated** Post-test	Actual Post-test	t-ratio	P
107	17.4 (2.9)	22.1	24.7	1.97	.05

* Raw Scores
** Results that could be expected without Title VII program intervention.

Table 9

4th Grade Reading Results. Title VII 1978-79

N.	Pre-test Mean (G.E.)	Anticipated** Post-test	Actual Post-test	t-ratio	P
81	18.3 (3.7)	22.7	23.1	.71	N S.

Table 10

5h Grade Reading Results. Title VII 1978-79

N.	Pre-test Mean (G.E.)	Anticipated** Post-test	Actual Post-test	t-ratio	P
104	16.0 (4.0)	19.0	24.5	2.78	.02

Table 11

6th Grade Reading Results. Title VII 1978-79

N.	Pre-test Mean (G.E.)	Anticipated** Post-test	Actual Post-test	t-ratio	P
97	19.5 (5.0)	22.4	26.1	1.91	.05

* Raw Scores
** Results that could be expected without Title VII program intervention.

Preface to Tables 12 and 13

In order to assess achievement of the Title VII program objectives for limited English speaking students, a special Rebus Reading (N=72). An 85% identification rate of the Rebus figure with the correct language counterpart was established by this evaluator as an acceptable criterion of success. Two skills were measured - Auditory Comprehension (the ability to hear spoken language then identify the correct Rebus figure), and Transitional Skills (the ability to move from Spanish to English using the Rebus figure.)

Tables 10 and 11 show data in three classes: Low, Medium and High. Once again, the "High" category is the key one to inspect in order to conclude if program goals were met, because it is within this category that one can find those students who met the 85% criterion established.

Table 12. Post-test Only of Auditory Comprehension Skills, Grades 1,2,3 (Rebus Method) Title VII 1978-79

# of students	Low Auditory Comp. Below 70% I.D. Rate	Medium Auditory Comp. 70% to 84% I.D. rate	High Auditory Co Above 85% I.D.Ra
68	2 3%	5 8%	61 89%

Table 13. Post-test Only. Transitional Skills, Grades 1,2,3. (Rebus Method) Title VII 1978-79

# of stu-dent.	Low Transitional Skills Below 70% I.D.rate	Medium Transitional Skills 70% to 84% I.D. rate	High Transitional Skills Above 85% I.D. rate
63	13 21%	22 37%	28 42%

PART III Summary

1. The overall program was implemented according to the objectives outlined in the proposal.

2. The Native Language Maintenance component was the weakest program segment in terms of measurable outcomes. Pre and post test distribution on the Spanish L.A.B. are nearly identical, indicating no growth among the target population. It is reasonable to assume that some growth is required among an elementary school aged population if their native language is to be maintained. No such growth (even minimal) is apparent.

3. The English Language development aspect of the program using the Language Concept Series with non-English speaking students and severely handicapped in their ability to speak and understand English was moderately successful and deserves continuation. The modal class among non-English students was units (or sixty separate skills mastered). The modal class among limited English speaking students was units completed (or 75 separate skills mastered beyond the first 100).

4. The academic outcomes (Math and Reading) produced by District 11's Title VII program are excellent. The method of analysis used allows this evaluator to conclude that in every grade save one, the reading component exceeds at a significant level the performance that could be expected without program intervention.

Moreover, in math every grade but one shows progress beyond that which could be expected if District 11 had not had the benefits of the Title VII intervention.

Finally, Tables 12 and 13 reflect highly successful language outcomes using the Rebus method. The auditory comprehension skills testing (Table 12) was not discriminating enough (90% of the population in the "high" category) to rely on, but does show uniform results. Because of design deficiency (post-test only with no control mechanism) the results cannot be attributed exclusively to program intervention, but the results demonstrate exit abilities which are desirable no matter what caused them.